

REMARKS

In response to the Office Action dated February 23, 2007, Applicants have amended claims 10, 11, 14, 16 and 18-20 to further define the present invention. Applicants note that the amendments to claim 10 broaden the claim in at least one aspect but no new matter has been entered through any of the amendments to the claims. Claims 10-16 and 18-22 remain pending in the present application and reconsideration thereof based on the above amendments is respectfully requested.

Claims 10-22 were provisionally rejected on the grounds of non-statutory obviousness-type double patenting over claims 1, 2, 4-9, 12 and 13 of copending Application No. 11/244,401, where the Examiner has acknowledged Applicants' prior statement that the provisional rejection need not be responded to at this time. The Examiner's acknowledgement is appreciated.

Applicants also note that the Final Office Action indicates that new grounds of rejection were necessitated by Applicants' prior amendment, and that the Examiner has incorporated by reference the rejection made in the Office Action mailed August 28, 2006. While this appears to be a contradiction, Applicants appreciate the Examiner's Response to Arguments.

Claims 10-19, 21 and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Balko et al.* (U.S. Patent no. 4,339,322) in view of *Tucker et al.* (U.S. Patent No. 5,614,312). Claim 20 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Balko et al.* in view of *Tucker et al.* and *Niu et al.* (U.S. Patent Publication No. 2003/0089890). Applicants respectfully traverse these rejections according to the remarks that follow.

All of the references cited in the rejections have been discussed previously and their general focuses need not be repeated. It should be noted, however, that the processes disclosed in *Balko et al.* are very different than those described in *Tucker et al.* and the present invention. *Balko et al.* is particularly concerned with the fluid distribution channels and their

formation. Their formation is made through a molding process, as described at column 6, lines 42-46, namely “[t]he mixture *was poured into a mold* with the fibers thorough[ly] distributed in the mixture of the fluoropolymer and carbon.” (emphasis added). In other words, the critical formation of the fluid distribution channels occurs through the pour and mold process. Such a process is much closer to injection molding, than other formation processes.

This should also be emphasized, since the Examiner asserts, in the Response to Arguments section, that “both methods [Balko and Tucker] involve compression molding and stacking of plates.” Such a statement glosses over the differences between the *Balko et al.* and *Tucker et al.* references. While plates are “stacked” in *Balko et al.*, see Fig. 1, they are not stacked to form the composite materials. In *Tucker et al.*, the compositing process used to form the plaques is not compression molding, as has been alleged.

In contrast to *Balko et al.*, plaques are formed in *Tucker et al.* through wet-lay processes. The resulting plaques are slab-like and surface structure is not disclosed. No mention is made of embossing or forming any surface structure on the plaques. In fact, comparison is made in *Tucker et al.* of composite plaques and injection molded compositions, where *Tucker et al.* clearly favors the formation through the wet-lay process. Given this teaching, Applicants respectfully assert that *Tucker et al.* teaches away from the combination of its teachings with *Balko et al.* because *Balko et al.* teaches processes that are related to injection molding. Under the proper legal standard, a reference will teach away when it suggests that the developments flowing from its disclosures are unlikely to produce the objective of the applicant's invention. *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). In the present case, given the negative teachings regarding injection molding provided in *Tucker et al.*, one of ordinary skill in the art would not have been motivated to combine *Balko et al.* and *Tucker et al.* to reach the subject matter of the instant invention, as has been asserted in the rejection of claims 10-19, 21 and 22.

The rejection applying the two references further assert that the combination of the references would yield improved electrical properties, but does not provide any rationale of how the teaching away by *Tucker et al.* would be overcome. At most, the combination of the references could teach components of a mixture to be poured into a mold and heated and pressurized to achieve the fiber reinforced current collector separator. However, that would not provide, as recited in claim 10, “forming using a wet-lay process a composite material.” Applicants respectfully assert that whether taken together or separately, *Balko et al.* and *Tucker et al.* fail to teach or suggest all of the elements of claim 10. Elements of claims 11-16 and 18-22, dependent on claim 10, would likewise not be taught. As such, Applicants respectfully assert that the rejection is improper and should be withdrawn.

Additionally, in the rejection applying *Balko et al.* and *Tucker et al.*, the Examiner acknowledges that *Balko et al.* fails to disclose depositing a second polymer on the top and bottom of the stack. However, the Office Action does not turn to *Tucker et al.* to rely on such a teaching; rather the Examiner alleges that it would have been obvious to apply the extra layers to have “polymers that have different heat resistance properties in order to ensure good heat distribution.” Such a finding is curious in that neither *Balko et al.* nor *Tucker et al.* contemplates such an issue.

Applicants respectfully assert that one of ordinary skill in the art would likely not deposit such layers, in view of *Balko et al.* or *Tucker et al.*. In view of both references, the imagined objective of having different heat resistance properties would not be met by depositing additional layers. In *Balko et al.*, the composition of the molded material would be altered to change the heat resistance properties. In *Tucker et al.*, no additional layers of polymers not already used are contemplated nor is there any reason why they would need to be deposited.

In the present application, the second polymer allows for enhanced chemical resistance and increased resistance to gas permeability. It is clear why the second layer may be added,

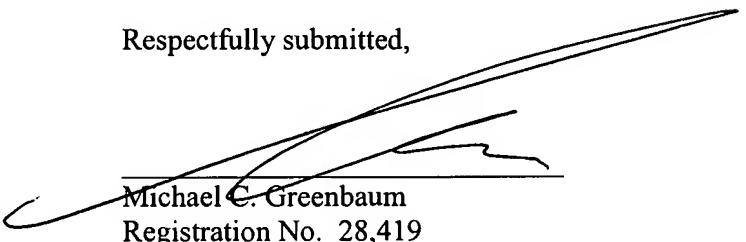
as opposed to *Balko et al.* and *Tucker et al.* where no rationale for its inclusion can be found in the references. In other words, while layers could be added, in theory, a proper rejection under 35 U.S.C. §103 must indicate what would motivate one of ordinary skill in the art to make such a change. The proffered suggestion that good heat distribution would result from the deposition of the second polymer layers pales when other methodologies of reaching the same result are specified in *Balko et al.* and *Tucker et al.* Applicants respectfully assert, for this additional reason, that the rejection applying *Balko et al.* and *Tucker et al.* is improper and should be withdrawn.

With respect to the rejection of claim 20, *Niu et al.* was also cited. *Niu et al.* was also previously discussed and fails to disclose the elements not taught *Balko et al.* and *Tucker et al.* *Niu et al.* further fails to provide motivation to overcome the insufficient motivation of *Balko et al.* and *Tucker et al.* As such, Applicants respectfully assert that the rejections made in the Office Action are improper and should be withdrawn.

In the event there are any questions relating to this Response or to the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that the prosecution of this application may be expedited.

Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 (124617-00155). Any fees due are authorized above.

Respectfully submitted,



Michael C. Greenbaum
Registration No. 28,419

BLANK ROME LLP
600 New Hampshire Avenue
Washington, D.C. 20037
(202) 772-5800

Date: March 23, 2007